Registration No. :

Total number of printed pages – 3

Seventh Semester Examination – 2011

SOFTWARE PROJECT MANAGEMENT

Full Marks – 70

Time : 3 - Hours

Answer Question No. 1 which is compulsory and any five from the rest.

The figures in the right-hand margin indicate marks.

1. Answer the following questions :   2×10

   (a) Difference between IT and NON-IT projects.

   (b) Write down the formula for calculating present value of a business or organization.

   (c) What is WBS ? Give a suitable example of WBS ?

   (d) What is a time-phased budget that will be used to measure and monitor cost performance in the project ?

   (e) Briefly explain the difference between CPM and PERT.

   (f) How to calculate Estimate at Completion (EAC) of a project ?

   (g) Explain different types of roles in review techniques.

   (h) Write down basic steps of project termination process.

   (i) What is egoless programming ?

   (j) Describe the expectancy theory of motivation.

2. (a) What is software project management ? Write down the benefits of SPM. Briefly explain the activities are covered by SPM.   5

   (b) What is risk and types of risks in IT projects ? How will manage the risk ? Define details about risk planning or resolutions techniques.   5

3. (a) What are different cost estimation techniques ? Explain COCOMO II model in detail with suitable examples.   5

(b) Below are details of a project. All times are in days. 5

Activity	Depends on	Optimistic time	Most likely	Pessimistic
A	–	8	10	12
B	A	10	15	20
C	B	5	7	9
D	–	8	10	12
E	D,C	3	6	9

Using the activity times above :

o   Calculate the expected duration and standard deviation of each activity.

o   Identify the critical path.

o   Draw up an activity diagram applying critical chain principles for this project :

•   Locate the places where buffers will need to be located

•   Asses the size of the buffers

•   Start all activities as late as possible.

4. (a) Explain why discount cash flow techniques provide better criteria for project selection than net profit or return on investment. 5

(b) Create a precedence activity network using the following details. Calculate the earliest and latest start and end dates and the float associated with each activity in the network. From this identify the critical path. 5

Activity	Depends on	Duration (days)
A	–	5
B	A	7
C	B	6
D	A	5
E	D	10
F	B	15
G	B	8
H	G	8
I	C	4
J	G	4
K	E, F	5
L	I, H	3

5. (a) What is software configuration management ? Explain in detail the various stages of configuration management. 5

(b) Suppose a project is budgeted to cost Rs.150,000. The project is to be completed in 18 months. After two months, the project is 10% complete at

an expense of Rs.25,000. It was planned that after two months, 15% of the project work should have been completed. Compute the Cost performance index and the Schedule performance index. Interpret these values to assess the progress of the project. 5

6. (a) What is contract ? Write down different types of contract. Explain the different stages in contract placement. 5

   (b) What is leadership ? Briefly explain different idea of authority or power is involved in leadership. Write down different types of leadership style. 5

7. (a) Describe in detail about ISO, CMMI and Six Sigma standards. 5

   (b) Write down Oldham-Hackman job characteristics Model. 5

8. Write short notes on : 2.5×4

   (a) Define putnam's work

   (b) Caper Jone's Thumb Rule

   (c) Taylor's X and Y theory

   (d) Herzberg's two-factor theory.